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Subject: Summary - Hopi Drinking Water project Monthly Conference Call, Wednesday, January 9, 2013

Bessie and Lionel,

Here is a summary of the January 9, 2013 monthly conference call regarding Hopi infrastructure projects. The next call is scheduled for Wednesday, February 6, 2013 and Bessie will provide the agenda and call-in phone number.

Participants:

Upper Village of Moenkopi...Gov. Sam Shingoitewa, Hubert Lewis, Randy Wolff, Jackie Sumatzkuku, Ronalyn Outie-Rios, and Yvonne Hoosava

Sipaulovi...Susan Secakuku

Hopi WRP...Uberta Mowa

Consultants...Kerry Brough, Mike Janes, Lynette Polaria

BIE...Glenn Allison

HUD...Cristal Quinn

IHS...Josh Van Vleet, Marcus Felter, Peter Mitchell, Brad Rea, Robert Lorenz and Eric Matson

EPA...Bessie Lee, Ken Greenberg, and John Hamilton

Hopi Arsenic Mitigation Project (HAMP):

- The well drilling contract should be awarded shortly to Yellow Jacket Drilling, after the company completes Hopi's TERO process, and the HEPO environmental plan. We expect the drilling to begin within 30 days. Josh had checked the driller's bid, and references and recommended award of the contract by the Tribe.
- 2. A meeting in Ft. Defiance has been scheduled for noon Tuesday, January 15 with NTUA, Royce Jenkins, IHS engineers and a representative of the Hopi power team to plan for the potential extension of the NTUA power grid to the Tawa 'ovi development and to the HAMP well sites. Issues to consider include the power demand of these facilities, capacity of the NTUA grid at this location, alignment,

- capital and usage costs, easements and the potential approval challenges and time frames within the Navajo and/or Hopi Tribes. Does the Hardrock Chapter need to approve this extension based on an easement approval or for some other reason?
- 3. IHS and the Tawa 'ovi development team are considering applying for a HUD CDBG grant for the power line extension. HUD issued the NOFA Wednesday, January 16, 2013 and the application deadline is March 18, 2013. HUD will schedule training in Phoenix and Albuquerque to assist applicants in this competitive grant process. Cristal asked to be included early in the planning and preparation of this grant proposal. Tawa 'ovi may have other related development grant applications for water and/or housing, so prioritization and coordination with HUD is imperative. Will there be one CDBG application for these related needs, or will each of the three projects be a separate application? Tawa 'ovi has completed scoping for a development EA and we presume BIA is the lead agency? It may be advisable for IHS to cooperate with the Tribe and BIA, since the HAMP and Tawa 'ovi are working together on power and to some extent, water. Eighteen units of housing are planned and at least one unit would be completed as part of the first phase, so this may help in eligibility for CDBG funds.
- 4. The HAMP EA has been delayed about one month awaiting the cultural and wildlife survey reports from the Hopi Tribe. The wildlife report is no complete and we understand the cultural report may be completed within two weeks. After information from these reports is incorporated into the EA, the draft document will be forwarded to cooperating agencies, including BIA, EPA, HUD, USDA RD, BOR and the Tribe. Glenn Allison asked if BIE could be added as a cooperating agency, and John will follow-up to include this agency. Even though the present scope of the HAMP and the EA do not include service to the three schools at Keams Canyon, Jr/Sr High and SMDS, the Polacca elementary school will be served through the FMCV water system. We plan to include HAMP water supply capacity for the other three schools and both BIA and BIE are encouraged to secure funding for water main extensions and capital cost contributions. The EA as drafted includes consideration of impacts of the power line alignment up to the Navajo Reservation border, so any additional alignment outside the Hopi boundary may need to be surveyed by NTUA or by IHS with the consent of Navajo.
- 5. The Tribal Council had directed that a village work group be formed to consider operational issues identified in the Strategic Plan, although the work group may not yet be active. Lionel had said he would move forward with formation of the group after village elections, so perhaps they will be meeting soon. IHS and EPA are available to provide technical assistance and consultation to the group as they move forward in consideration of operating alternatives and related concerns. The Strategic Plan will be completed after village comments are considered and work group activities have been completed.
- 6. We understand the Hopi General Counsel (tribal attorney) is working on the development of a tribal utility through the drafting of a utility ordinance. IHS has offered to provide technical assistance. We don't know if this step is part of the Tribe's planning for this alternative or whether the Tribal Council has decided this is the preferred alternative for operation and maintenance of the HAMP. Note, BIA has indicated they would like to transfer operation of the Keams Canyon water (and sewer?) system to the Tribe.
- 7. The application for HAMP grant and loan funding from USDA-RD is awaiting action in the Vice Chairman's office. This may be awaiting completion of a fiscal audit, which is required for the application? Hopi WRP met recently with the new Hopi Finance Director, and these issues were discussed.
- 8. EPA accepted applications for DWTSA water supply grant funding this fall and the ranking process is underway. While it seems likely the HAMP project will rank relatively high, as a result of the arsenic levels in drinking water for both First and Second Mesa villages, EPA has already funded the project in the amount of \$4 million and IHS has provided \$950,000. The total disbursements to date equal \$364,800, while a total of \$2,978,800 is obligated for ongoing expenses, including the above referenced well drilling contract. The available, unobligated balance of combined EPA and IHS funds is \$1,668,800. The balance of construction financial needs for this project will required in late 2013 or 2014. We are hopeful that some USDA-RD funding will be available this FY, although as the USDA-RD application, HAMP EA and Strategic Plan move slowly through the drafting and approval process, competing for USDA funds this year looks less likely.

Shungopavi Project:

9. Christine resigned as assistant CSA, so the village will need to find another CSA replacing Gene.

- 10. The contractor, NJ Shaum of Flagstaff, is waiting for the signed contract from the Hopi Tribe. The contract has been in the tribal attorney's office for review. Hopefully work can begin the week of January 14, 2013. The contractor will need to be respectful of villages ceremonies. A preconstruction meeting will be arranged shortly, including Hopi WRP, the contracting officer, the village and GHD.
- 11. Hopi WRP is working with the village on a revision of the work plan for a northern extension of the community water mains, which will become part of the HAMP extension to the village. There will also be branch distribution lines from this new waterline.
- 12. IHS requested a copy of the as-built drawings for the DWTSA project, including the water mains and appurtenances along with the elevated water storage tank. GHD may have previously sent the as-builts to IHS, but since they are digital, there is no problem sending them once again. Copies of the drawings for the work contracted to Shaum will also be forwarded.
- 13. IHS will talk to the village and Clean Water Act staff at EPA regarding the potential for additional sewer funding for an ongoing project in Shungopavi.

Upper Moenkopi Wastewater:

- 14. The Village has a new Governor, Sam Shingoitewa. Sam had previously been the general manager of MUA, so he will have a good familiarity with both the water and wastewater systems and operational challenges.
- 15. The new EPA Region 9 Enforcement Division will begin independent operation on February 11, 2013. Previously enforcement staff working on water and wastewater issues were part of the Water Division.
- 16. Michelle Moustakas retired in December and the new EPA CWA compliance officer will be Susanne Perkins, email: Perkins.Susanne@epamail.epa.gov
- 17. Randy Wolff said the wastewater plant is operating satisfactorily, 24/7, although MDC had a problem with one of the actuators, which had temporarily been inoperative.
- 18. EPA received information requested as part of the wastewater Notice of Violation, and the submittal is being evaluated by staff. Any questions will be directed to Randy, as MDC continues to operate the plant during the interim. After completing this review, EPA's goal is to issue a compliance "order on consent".
- 19. The current NPDES discharge permit is issued to MUA, so if the Village decides another entity will be responsible, they will need to complete an EPA form identifying that party.
- 20. The Village would like to allow reuse of treated wastewater for local agriculture, although EPA has no regulations to provide for this. EPA is working with the Village to assure safe operation and effluent discharge and they recommend consideration of treatment and sampling requirements along the lines of what the State of Arizona would require, which is much more stringent than the current discharge permit. EPA feels the wastewater treatment plant is capable of producing high quality effluent that could be safe to use for agriculture, if State standards were utilized.
- 21. The village asked if EPA requires certified operators for the water and wastewater treatment plants? Ken said there is no regulatory requirement for certified wastewater treatment operators on Tribal lands, although if the this system was regulated by the State a level 3 or 4 operator would be required. EPA regulations also do not require operator certification for the water treatment plant, although there are DWTSA grant conditions mandating the appropriate level of certified operator for the water treatment plant. The Village is considering hiring ADEQ certified operators and having the current operators get ADEQ certification.

Upper Moenkopi Water Supply:

22. There is a question about the whether MUA will continue to function or will MDC or the Village Council permanently be responsible for operation of the water and wastewater plants? Hubert had tried to make a presentation to the Village Council about the need for a water/sewer rate increase, but this was "tabled" until a meeting of the triad (Village Council, MUA and MDC) scheduled for January 29, 2013. It's clear the present rate of \$35/month is insufficient to pay for operations of the water and wastewater system. MDC has been subsidizing operating costs and funding some needed capital improvements since Spring 2012. There are insufficient MUA Board members to "officially act" and this is a long-standing problem. MDC had offered to operate both the water and wastewater plants in May, 2012, but

- the Governor said the Village Council was not consulted when MDC assumed responsibility for operations from MUA.
- 23. Randy said one of the RO treatment plant operators, Leonard, is no longer working and the other operator, Kee Brown's status is uncertain. The treatment plant is operating, with the assistance of GHD staff, on a winter schedule of three days/week.
- 24. There are no major operational problems at the RO plant, and upgrades have been completed, including rewiring the chlorination pump flow switch and replacement of one membrane, which may have been damaged by chlorine from a leaking discharge valve.
- 25. BEC, the treatment plant contractor, submitted the final commissioning invoice to Hopi WRP. The BEC project manager, Patrick, has been laid-off by BEC.
- 26. GHD completed the operation and maintenance procedures manual and the cost evaluation report for the RO treatment plant in December. The cost evaluation report considered the cost and viability of five different operating scenarios for the treatment plant, which had been requested by the Village:
- Operating the treatment plant 24/7 all year, at treatment capacity of 40,000 gpd, using the three wells at 115,000 gpd to meet the balance of water needs (78,000 gpd total average demand and up to 158,000 gpd for peak summer demand).
- Operating the treatment plant 8 hr/day all year, producing just 9,000 gpd, with the balance from the three wells
- Operating the treatment plant 3 days/week, and just 8 hr/day, producing just 5400 gpd, with the balance from the three wells
- Seasonal operation of the treatment plant for 5 months/year 24hr/day, includes a two week startup period, with the balance from the three wells
- Use of the wells only, without the treatment plant, 115,0000 gpd, which does not meet peak summer demand
- 27. The GHD report is a good analysis of operating alternatives and costs. While the Village will need to decide on which alternative to utilize, annual operating costs for the treatment plant ranges from \$306,060 for 24/7 to \$144,720 for 3 days/wk. In addition, the three wells annual operational costs range from \$15,540 to \$18,720, as a function of amount of daily use. Without the treatment plant, the wells can't meet the peak daily or peak monthly demand, and with the treatment plant the combined capacity "may not be able to meet the peak summer demand", (report page 2). The plumbing repair project was completed and that seems to have had a very positive impact on reducing peak demand. The Village has not been able to complete the installation of water meters, which could also help bring down excessive water use if billing is based on metered usage. GHD has started a water supply evaluation to determine if there are alternatives that may reduce costs and improve this marginal supply.
- 28. The engineering contract for the pipeline and controls for the new water storage tank has been awarded by MDC, and work on the tank is expected to begin in March.
- 29. MDC is planning for the development of a 60 unit apartment complex! They are seeking funding at this time. While the apartments would help with housing related to MDC economic development, it will further tax the capacity of the water system.

John Hamilton, PE EPA Engineering Consultant